TABLE 34 *Cost inputs into the model*

Name	Details	Value (£)	Distribution	Source
Diagnostic tests	Nitrite	0.13	Fixed	BNF[251]
	LE	0.13	Fixed	BNF[251]
	Glucose	0.13	Fixed	BNF[251]
	Nitrite/LE	0.15	Fixed	BNF[251]
	Pyuria	8	Fixed	Molyneux[252]
	Bacteriuria	8	Fixed	Molyneux[252]
	Pyuria/bacteriuria	16	Fixed	Molyneux[252]
	Dipslide culture	2.60	Fixed	Fenwick[246]
	Laboratory culture	2.60	Fixed	Fenwick[246]
Imaging	Conventional ultrasound	25.84	Fixed	York Hospital
	Contrast-enhanced ultrasound	124.05	Fixed	York Hospital
	MCUG	124.05	Fixed	York Hospital
Administration of tests	GP-administered tests (GP time)	6.77	Fixed	PSSRU[253]
	Hospital-based tests (outpatient visit)	86.00	Fixed	PSSRU[253]
Costs of treatment	Cost of low-dose long-term prophylaxis (per month)	2.43	Fixed	BNF[251]
	Cost of acute antibiotic treatment	6.58	Fixed	Fenwick[246]
	Additional cost of pyelonephritic treatment	17.256	Fixed	Claxton[244]
	Cost of UTI untreated	18	Fixed	PSSRU[253]
	Cost of pyelonephritic attack untreated	125	Fixed	Claxton[244]

PSSRU, Personal Social Services Research Unit.

TABLE 35 *Utility estimates used in the model*

Utility decrement of UTIs	Value	Duration	Distribution	Source
Utility decrement of treated UTI	0.001392	3 days	Fixed	Barry[245]
Utility decrement of treated pyelonephritic attack	0.010225	10 days	Fixed	Barry[245]
Utility decrement of untreated UTI	0.003248	7 days	Fixed	Barry[245]
Utility decrement of untreated pyelonephritic attack	0.014315	14 days	Fixed	Barry[245]

data were extracted. Drug costs were taken from the British National Formulary (BNF, issue 43).[251] Other sources included specific NHS hospitals, earlier published estimates in the area and national unit cost databases. All costs were adjusted to a 2003 price basis as appropriate.

Utilities

To reflect the implications of infections (lower UTI and pyelonephritis) when treated and untreated in the estimates of differential QALYs between the strategies, estimates of utility decrements associated with different types of infections are shown in *Table 35*. A study was not available that estimated the disutility of infections in children; therefore, these data are taken from a single source that looked at the cost-effectiveness of various treatment strategies for women with suspected UTIs.[245] Utilities were obtained from the Index of Well-Being, a multiattribute health scale that takes into account patient mobility, social activity and symptoms. The assumed durations of different attacks are shown in *Table 35*. These are also taken from Barry and colleagues.[245]

Long-term costs and effects from the long-term model

The long-term model is a development from one published earlier,[244] and the input parameters in the model are detailed in *Table 36*.

In the long-term model the frequency of recurrent UTI is modelled using a Markov process to establish the impact on quality of life and associated costs. The period for which a child is at risk of recurrent UTI was assumed to be 3 years.[10] A proportion of recurrent UTI episodes is assumed to be pyelonephritic attacks,[256] which have an additional (negative) impact on quality of life and costs. The probability of a UTI being pyelonephritic (by age and gender) and the probability of PRS given the cumulated number of pyelonephritic attacks (by VUR status) were based